

## Five Rules of Ladder Safety<sup>1</sup>

Timothy G. Prather<sup>2</sup>

Did you know that falls are the leading cause of deaths in and around the home? According to the National Safety Council, over 6,000 people die from falls in and around the home each year, and many times that number suffer disabling injuries. The accidents include slipping on wet or icy surfaces, falling down stairs, falling off the roof and falling from ladders. In fact, more than 30,000 people are injured each year by falls involving ladders. Most of these accidents occur because the victims violate the basic rules of ladder safety. Offered below are five rules for ladder safety, with emphasis on stepladders and straight ladders.

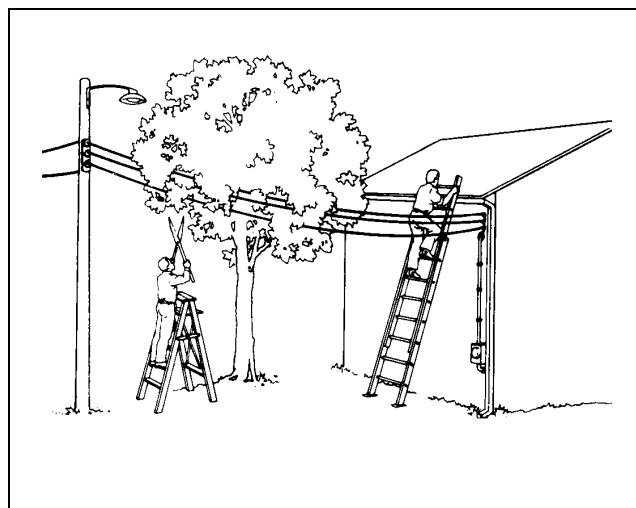
### **RULE 1: SELECT THE RIGHT LADDER FOR THE JOB**

There are many types of ladders available, each intended for a specific purpose. In addition, they may be of wood, aluminum or fiberglass construction and designed for light to industrial use. For typical homeowner applications two types are most common—straight ladders (single or extension) and step ladders. Regardless of the type or construction, be sure the ladder has a label certifying that it complies with specifications of the American National Standards Institute (ANSI) and that it is listed by Underwriters Laboratories (UL).

Be sure the ladder is long enough to work from comfortably and sturdy enough to withstand repeated use. Aluminum is a good choice of construction since it is lightweight and is not affected by weather as much

as wood. However, wood or fiberglass ladders are not as "shaky" as aluminum ladders.

If the work involves possible contact with sources of electrical current, an aluminum ladder is not suitable since it conducts electricity. In these places a dry wood or fiberglass ladder is needed (see Figure 1).



**Figure 1.** Danger! Metal conducts electricity! Keep metal ladders away from power lines and live electrical wires.

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2. Timothy G. Prather, Extension Assistant, Agricultural Engineering Department, Agricultural Extension Service, University of Tennessee, Knoxville, Tennessee.

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## **RULE 2: INSPECT THE LADDER BEFORE YOU USE IT**

Any ladder can develop a problem which can render it unsafe. Each time you use a ladder, inspect it for loose or damaged rungs, steps, rails or braces. Also check for loose screws, bolts, hinges and other hardware. Make certain the spreaders on stepladders can be locked in place and that the ladder has safety feet which will provide more stability and reduce the chances of the ladder slipping while you work.

If the ladder has any type of defect, it must be repaired or the ladder must be replaced. Never use a ladder which is defective. A painted wood ladder may have defects which are hidden by the paint. Painting a wood ladder is not recommended. However, it can be treated with clear materials such as varnish and wood preservatives.

## **RULE 3: SET UP THE LADDER WITH CARE**

No matter how safe the ladder is, if it is placed in a dangerous location or set up improperly an accident is bound to happen. If you must set the ladder in a traffic area, use a barricade or guard to prevent collisions. Lock or block any nearby door that opens toward you. The area around the base should be kept uncluttered, and the ladder should be set on a solid, level surface.

Stepladders should be fully opened with the spreaders locked. Straight ladders should be placed at a four-to-one ratio. This means the base of the ladder should be one foot away from the wall or other vertical surface for every four feet of height to the point of support.

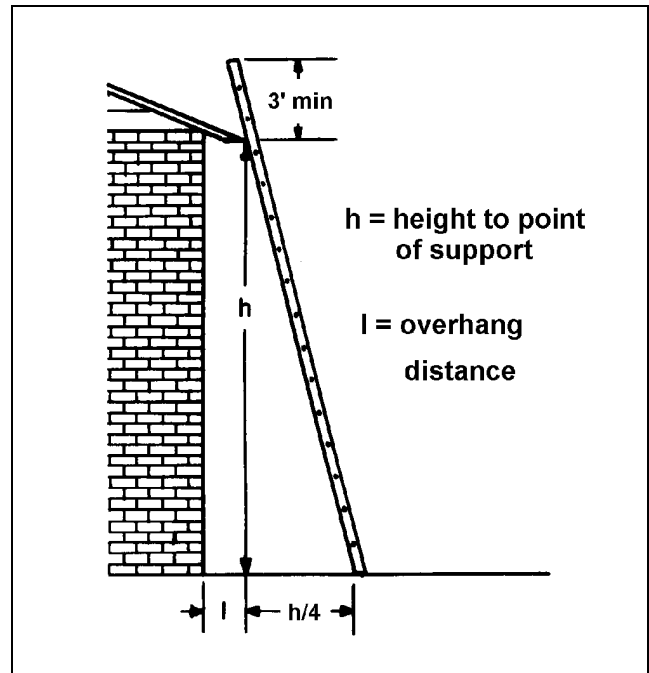
If you plan to climb onto a roof or platform from a ladder, be sure the ladder extends above the edge at least three feet (see Figure 2).

If possible, secure a straight ladder as close to the point of support as possible to prevent shifting. Never lean a ladder against an unstable surface.

## **RULE 4: CLIMB AND DESCEND LADDERS CAUTIOUSLY**

Always face the ladder and hold on with both hands. If you need tools, carry them in a tool belt or raise and lower them with a hand line.

To avoid slipping, always check the rungs and the bottoms of your shoes for slippery substances. You may



**Figure 2.** The base of straight ladder should be one foot out for every four feet of height to the point of support.

wish to apply a slip-resistant material to the steps of a metal ladder to provide better footing.

## **RULE 5: USE COMMON SENSE WHEN WORKING ON A LADDER**

Always hold on with one hand and never reach too far to either side or to the rear. To maintain your balance, keep your belt buckle between the ladder rails. Climbing too high can also lead to accidents, so never climb higher than the second step from the top on a stepladder or the third from the top on a straight ladder.

### **Ladder Transportation**

When one man is carrying a ladder by hand, the front of the ladder should be kept high enough to clear a man's head, especially around corners, in aisles and through doorways.

Reasonable care should be taken to avoid damaging a ladder at all times. Do not drop, toss or throw a ladder. Use side stakes when hauling to prevent lateral swing and tie the ladder down securely. Drive slowly over rough terrain.

### **Storage**

Ladders should be stored in well ventilated areas and in a manner that will prevent sagging and warping. Straight ladders are best stored in flat racks or on wall brackets. Step ladders should be stored in the vertical, closed position.

Wood ladders should be protected from moisture, insect damage and excessive heat. Moisture and sun exposure are the two main enemies of wood ladders, and can rapidly shorten the useful life of a ladder.